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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Tsz Cheng

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Novak Druce + Quigg LLP
CityPlace Tower, 525 Okeechobee Blvd.
Fifteenth-Floor
WEST PALM BEACH, FL 33401

EXAMINER

TANK, ANDREW L

ART UNIT

PAPER NUMBER

2175

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/715,041	Applicant(s) CHENG ET AL.	
	Examiner ANDREW TANK	Art Unit 2175	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,5,8,9,23,24,28,31 and 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,8,9,23,24,28,31 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following action is in response to the Request for Continued Examination (RCE) filed under 37 CFR 1.53(d) for the instant application on June 16, 2009.

Applicants have properly set forth the RCE, which has been entered into the application. Accordingly, the amendment submitted June 16, 2009, has been entered and an examination on the merits follows herewith.

2. Claims 1 and 4 have been amended. Claims 31 and 32 have been newly added. Claims 1, 4-5, 8-9, 23-24, 28 and 31-32 are pending and have been considered below.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 3-5, 8-9, and 23-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al., "Tele-Handshake through the Internet", IEEE Workshop on Robot and Human Communication, copyright 1996 IEEE, pages 90-95, previously presented as "Hashimoto", in view of Cohen et al. (US 7,036,094), previously presented as "Cohen".

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Claims 1, 31 and 32: Regarding claim 1, Hashimoto discloses a method of communicating physical human interactions over a communications network (page 90 col 2 lines 4-8) comprising:

performing an action on a first model by a first user located at a sending system (page 90 col 2 “Tele-Handshaking System” paragraphs 1 and 2, tactile feedback, Operator A, site A), said first model representing at least a portion of a human body (page 91 Fig. 2), wherein said first model incorporates one or more sensors (page 91 Fig. 2);.

detecting portions or locations on the first model to which the first user applied force and an amount of force applied over time by each sensor (page 90 col 2 paragraph 4), each sensor being configured to generate and send data when a force is detected (page 94 col 2 paragraph 5) paragraph, the generated data specifying a time the force was detected, the amount of force detected, and the body part to which force was applied (page 95 Figure 7 shows force applied over time);

collecting and analyzing the data generated by each sensor from the action (page 94 4.2 VIPEC);

encoding the data into one or more messages having an intermediate data format for transmitting the determined action over the communications network to a receiving system (page 91 paragraph 1, page 91 3.1: TCP/IP);

receiving and interpreting the one or more messages by the receiving system to determine the action specified by the one or more messages (page 93 3.3); and

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simulating the action by performing said action on a second user at the receiving system using a second model (page 90 “Tele-Handshaking System” paragraph 2), said second model representing at least said portion of said human body (page 91 Fig. 2), wherein said second model incorporates one or more actuators which are activated to simulate the action (page 91 Fig. 2).

While Hashimoto discloses that the portion of a human body is a hand and that the physical contact in question is a handshake, Hashimoto does not explicitly disclose that the portion of a human body includes at least one among a human head, face, back and entire human body, wherein the action of the first user includes at least a body movement and a change in facial expression of the first user; nor does Hashimoto explicitly disclose determining the action intended by said first user.

Cohen discloses a system for recognizing behaviors as a combination of gestures identified on various parts of a human body in motion (Abstract lines 1-3). The various gestures include any type of static gestures determined via multiple cameras (col 16 lines 62-63), including body portions such as foot, limb and full body gestures (col 16 lines 65-67). The gestures are recorded and compared by a behavior program to identify what type of behavior is being presented (col 23 lines 43-47).

Therefore, it would have been obvious to one having ordinary skill in the art and the teachings of Hashimoto and Cohen before them at the time the present invention was made, to further expand the physical contact transmission method of Hashimoto to include identification of various actions using different human body portions. One would have been motivated to do this in order to expand the hand-shake action of

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Hashimoto to further include other actions from other body parts, as suggested by Cohen (col 16 lines 65-67).

Hashimoto and Cohen do not explicitly disclose that the data is first converted to markup language before encoding the data into messages for transmission via TCP/IP. However, Hashimoto discloses operating the method using the TCP protocol for transmitting the data via the Internet (page 91 3.1). The Examiner takes Official notice that it is old and well known in the networking arts to convert data using a markup language such as HTML or XML for transmitting data via the Internet by way of TCP/IP. Therefore, it would have been obvious for one of ordinary skill in the art with the teachings of Hashimoto and Cohen before them at the time the present invention was made to convert the data using a markup language before transmitting it via TCP. One would have been motivated to do this in order to use established methods of data transmission, such as standard mark up language for converting the data for TCP transmission, as suggested by Hashimoto (page 91 3.1. “we have selected to use reliable TCP protocol”), thereby avoiding the cost and time involved with developing one’s own mark up language and transmission protocol, when using Internet aware applications.

Claims 31 and 32 recite limitations similar to claim 1 and are rejected for similar reasons.

Claim 4: Hashimoto and Cohen disclose the physical movement transmission and replication mark up language method as in claim 1 above, and Hashimoto further

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discloses identifying the action from the markup language formatted data in the receiving system (page 90 “Tele-Handshaking System” paragraph 4).

Claim 5: Hashimoto and Cohen disclose the physical movement transmission and replication mark up language method as in claim 4 above, and Hashimoto further discloses wherein the markup language formatted data specifies at least one actuator movement to be implemented by the receiving system and an amount of force to be applied in the at least one actuator movement (page 90 “Tele-Handshaking System” paragraph 4).

Claim 8: Hashimoto and Cohen disclose the physical movement transmission and replication method as in claim 8 above, and Hashimoto further discloses said simulating step further comprising the step of translating the action into instructions for activating at least one actuator (page 91 Fig. 1 on Operator B Site B: “Host Computer – ISA bus - DA”); and activating the at least one actuator in accordance with the instructions (page 91 Fig. 1 on Operator B Site B: “DA – Linear Motion Motors – Handshake Device”).

Claims 9: Hashimoto and Cohen disclose the physical movement transmission and replication method as in claim 1 above, and Hashimoto further discloses the method further comprising:

detecting physical contact of the second model by a second user (page 90 col 2 “Tele-Handshaking System” paragraphs 1 and 2, tactile feedback, Operator B, site B), wherein said second model incorporates one or more sensors (page 91 Fig. 2); generating data from said sensors specifying the physical contact of the second model (page 90 “Tele-Handshaking System” paragraph 4);

determining at least one action intended by the second user indicated by the generated data (page 90 "Tele-Handshaking System" paragraph 4);
transmitting the determined action over a communications network to the sending system (page 91 paragraph 1); and
simulating the action by performing said action on the first user at the sending system using the first model (page 90 "Tele-Handshaking System" paragraph 2), wherein said first model incorporates one or more actuators (page 91 Fig. 2).

Claim 23: Hashimoto and Cohen disclose the physical movement transmission and replication method as in claim 1 above, and Hashimoto further discloses wherein said generated data specifies a time when a force was detected (page 95 Fig. 7 Operator force, x-axis = time in seconds), amount of said force (page 95 Fig. 7 Operator force, y-axis = force in Newtons), and a location on said human body to which said force was applied (page 95 Fig. 7 Tele-handshake test result, hand).

Claim 24: Hashimoto and Cohen disclose the physical movement transmission and replication method as in claim 1 above, and Hashimoto further discloses wherein said action intended by said first user includes at least one among a handshake, an embrace, and a pat on the back (page 90 "Tele-Handshake through the Internet").

5. **Claim 28** is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto and Cohen as applied to claims 1 above, and further in view of Oakley, I. and O'Modhrain, S., "Contact IM: Exploring asynchronous touch over distance,"

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Proceedings of CSCW, New Orleans, USA, 16-20 November 2002, previously presented as "Oakley".

Claim 28: Hashimoto and Cohen disclose the physical movement transmission and replication method and computer-readable medium as in claim 1 above, wherein human actions are interpreted as behaviors by a physical model and transmitted over a network to be actuated by another physical model. Hashimoto and Cohen do not explicitly disclose providing a graphical user interface, within said graphical user interface said first user can select human actions or processing tasks, wherein said human actions include at least one among "touch the face", "touch arm", and "embrace" and said processing tasks include at least one of "opening an audio channel" and "opening a video channel". Oakley discloses an Instant Messaging system wherein haptic effects can be selected by a first user and conveyed via communication network to a second user (page 1: paragraph 1, paragraph 9). Specifically, Oakley discloses a user selecting, via a GUI, the recipient of a haptic message and/or audio or text message (page 2 paragraph 4). Therefore, it would have been obvious to one having ordinary skill in the art and the teachings of Hashimoto, Cohen and Oakley, to combine the GUI for selecting and transmitting haptic actions and processing tasks as taught by Oakley, with the physical movement transmission method of Hashimoto and Cohen, to yield a graphical user interface for selecting human actions and processing tasks such as opening a video or audio channel. One would have been motivated to do this in order to provide an asynchronous instant messaging client with physical movement actuation, as suggested by Oakley (page 1 paragraph 1).

Response to Arguments

Applicant's arguments filed June 16, 2009 have been fully considered but they are not persuasive.

Applicant argues that Hashimoto does not disclose that the action of the first user includes at least one body movement of the first user and a change in facial expression of the first user, but only discloses the action as a physical contact between the operator and the hand shake device. The Examiner respectfully disagrees. The limitations in question are addressed by Cohen and not Hashimoto, as reflected in the rejection of claim 1 above.

Applicant argues that Hashimoto does not disclose converting the data to markup language formatted data and encoding the data into one or more messages for transmitting the determined action over the communications network to a receiving system. The Examiner notes that this argument is moot in light of the rejection above. Converting data using markup language is old and well known in the networking arts as a method of transmitting data via TCP/IP.

Applicant argues that Hashimoto does not disclose that the human body part represented by the first model can be a human head, a human face, a human back or an entire human body. Applicant further argues that since the tele-handshaking system of Hashimoto has only one intended action, namely shaking hand, it is not necessary for Hashimoto to determine the intended action from the data generated by the sensors

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and transmit the intended action to the receiving system. The Examiner notes that Cohen is relied on for the argued limitations.

Applicant argues that Cohen is non-analogous art to Hashimoto and “has nothing to do with the subject matter of the present invention.” The Examiner disagrees. Cohen is drawn to using sensors to detect actions. The actions are then categorized into behaviors in order to be replicated at a later date. Applicant's invention is drawn to using sensors to determine actions and then replicate them at a different machine. The art is analogous.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW TANK whose telephone number is (571)270-1692. The examiner can normally be reached on Mon-Thur 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Bashore can be reached on (571)272-4088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. T./
Examiner, Art Unit 2175
August 31, 2009

/William L. Bashore/
Supervisory Patent Examiner, Art Unit 2175